AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1-9.   (Cancelled)

10.   (New)   A control method for regulating the flow of data between a first transmitting radio network node and a second transmitting radio network node in a radio transmission network, comprising the steps of:

said second transmitting radio network node receiving data from said first transmitting radio network node to be forwarded to plural user entities via an air interface; wherein,

the first transmitting radio network node sends a capacity request to the second transmitting radio network node requesting the second transmitting radio network node for permission to send an indicated number of data units that are pending in the first transmitting radio network node; and,

the second transmitting radio network node, in response to the capacity request, sends an allocation frame to the first transmitting radio network node, said allocation frame indicating the number of data units the first transmitting radio network node is given permission to transmit, this latter number being referred to as credits;

wherein said second transmitting radio network node, if buffer resources for storing of data units at the second transmitting radio network node are limited for a data flow between the first and second transmitting radio network node, performs the steps of:

counting the instantaneous number of requested data units;

computing the number of credits to be granted by subtracting from a target buffer filling level the number of data units currently stored in the buffer and the number of credits previously given but not yet received (outstanding credits); and,

inserting the number of granted credits so computed in an allocation frame for transmission to the transmitting node in response to the capacity request.

11.   (New)   The control method recited in claim 10, further comprising the steps of:

comparing the number of data units currently stored in the buffer with the number of requested data units;

selecting the smaller one of these numbers as a potential number of granted credits from which the number of outstanding credits is subtracted in order to obtain the number of granted credits.

12.   (New)   The control method recited in claim 11, wherein the receiving node keeps a running count of the number of outstanding credits, comprising the steps of:

increasing the count each time an allocation frame is sent, said count being increased with the number of granted credits indicated in the allocation frames; and,

decreasing said count each time data units are received, said count being decreased with the number of received data units.

13.   (New)   A control method for regulating the flow of data between a first transmitting radio network node and a second transmitting radio network node in a radio transmission network, comprising the steps of:

said second transmitting radio network node receiving data from said first transmitting radio network node to be forwarded to plural user entities via an air interface; wherein:

the first transmitting radio network node sends a capacity request to the second transmitting radio network node requesting the second transmitting radio network node for permission to send an indicated number of data units that are pending in the first transmitting radio network node; and,

the second transmitting radio network node, in response to the capacity request, sends an allocation frame to the first transmitting radio network node, said allocation frame indicating the number of data units the first transmitting radio network node is given permission to transmit, this latter number being referred to as credits;

wherein the second transmitting radio network node, if buffer resources for storing of data units at the second transmitting radio network node are limited for each data flow between the first and second transmitting radio network nodes, performs the steps of:

counting the instantaneous number of requested data units in each data flow to obtain a total number of requested data units;

computing the total number of credits to be granted in each data flow by subtracting from a target buffer filling level for the total number of data flows the total number of data units currently stored in each of the buffers and the total number of credits previously given but not yet received; and,

distributing the total amount of credits of the receiving node proportionally to the radio channel qualities indicated by the respective user entities.

14.   (New)   The control method recited in claim 13, further comprising the step of limiting the total sum of user data in all data streams to a desired value less than or equal to the total requested number of data units.

15.   (New)   A control method for regulating the flow of data between a first transmitting radio network node and a second transmitting radio network node in a radio transmission network, comprising the steps of:

said second transmitting radio network node receiving data from said first transmitting radio network node to be forwarded to plural user entities via an air interface, wherein:

the first transmitting radio network node sends a capacity request to the second transmitting radio network node requesting the second transmitting radio network node for permission to send an indicated number of data units that are pending in the first transmitting radio network node; and,

the second transmitting radio network node, in response to the capacity request, sends an allocation frame to the first transmitting radio network node, said allocation frame indicating the number of data units the first transmitting

radio network node is given permission to transmit, this latter number being referred to as credits; and,

distributing the number of credits given by the second transmitting radio network node proportionally to the radio channel qualities indicated by the respective user entities to which the second transmitting radio network node is scheduling radio transmission of data units.

16.   (New)   A radio network node for regulating the flow of data from a transmitting node, comprising:

a buffering resource;

a capacity allocation device for allocating individual amounts of user data to individual user entities;

a flow control protocol and a scheduler;

wherein the capacity allocation device comprises a counter for keeping a running count of the instantaneous number of outstanding credits, outstanding credits being defined as the number of data units that the allocation device has permitted the transmitting node to send, although the corresponding number of data units has not yet arrived at the radio network node.

17.   (New)   The radio network node recited in claim 16, wherein the capacity allocation device comprises a counter for keeping a running count of user data pending in the transmitting node.

18.   (New)   The radio network node recited in claim 16, further comprising a distribution device adapted to distribute the total number of credits given by the radio network node proportionally to the radio channel qualities indicated by the respective user entities to which the scheduler is scheduling radio transmission of data units.